

A person wearing a red top, white pants, and red shoes.

Chantale Dumoulin

Urinary Incontinence

**How to Prevent and Treat
This Inconvenient Problem**

Montreal University
Institute of Geriatrics
Collection

Québec 

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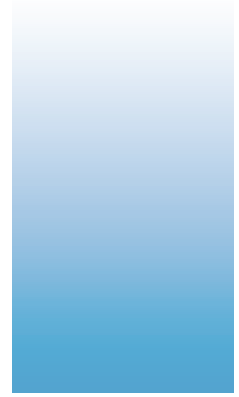
I would like to dedicate this book to:

Dr. Jo Laycock (Jo),

I feel very lucky to have you as my mentor. Thank you for the skills you have taught me and for sharing your insights and perspectives into our field during our long discussions while walking the dog. Your leadership, energy and passion have inspired me to become the researcher I am today while remaining a clinician at heart. I'll forever be grateful to you.

Ms. Lesley Kelley-Régnier,

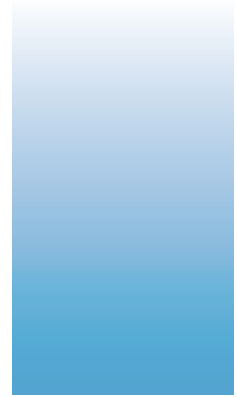
It was through Jo that I was introduced to you, many years ago. Thank you for your help in editing my abstracts, manuscripts and grant applications over the years. Thank you too for translating and adapting the questionnaires for our research. Your invaluable contributions to our work have always pushed me to do better. You have become not only a great teammate, but also a true friend.



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Thank you to my mother, Micheline Dumoulin, who agreed to model for the photos in this guide.



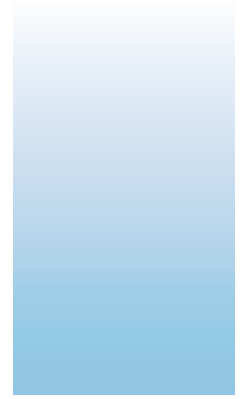
Foreword

Unsurprisingly, most people do not talk about urinary incontinence, the accidental loss of urine, on a daily basis. Perhaps we should. Incontinence is common in women after menopause and becomes increasingly frequent as they age. Up to one in four women in Canada over the age of 65 think that it's completely normal to wet oneself simply because of one's age, and this simply is not true. Women are also largely unaware of potential treatments for improving or perhaps even curing this condition. On average, women wait up to 3½ years before plucking up the courage to seek health care advice. This is unacceptable, and it is up to the health care system and its practitioners to improve the situation.

Here, Chantale Dumoulin has authored this excellent book which outlines the underlying causes of incontinence and provides advice on the management and treatment of this condition using lifestyle adjustments and pelvic floor muscle re-education, as part of an intensive three-month program and then maintenance exercises to maintain benefit.

Chantale Dumoulin is an internationally recognized researcher in physiotherapy and an expert in the management of incontinence, with many years' experience in carefully designed and evaluated non-invasive non-drug treatments. I have no doubt that many who use the information presented here will benefit from her experience and sage advice and will regain control of their lives and bladders. I also hope that you, the reader, will pass on the information to others you know with similar bladder problems. They are treatable.

Adrian Wagg, MB BS FRCP(LOND) FRCP (EDIN) FHEA (MD)
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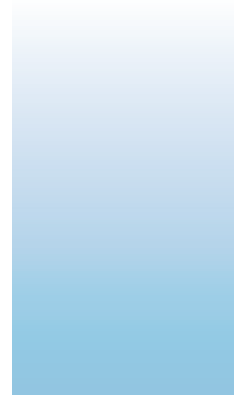


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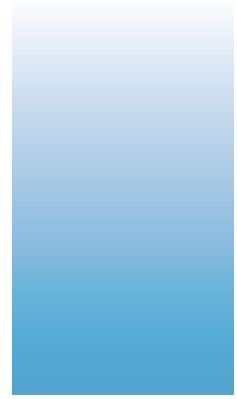
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Part 1
A Little Theory



Introduction

Although bladder control problems such as an urgent need to urinate, frequent urination and urine leakage affect 30% to 50% of women aged 60 and over, they are not a normal part of aging. These problems not only become a significant financial burden but can also lead to isolation, reduced physical activity and an increased risk of falls requiring a permanent move to a retirement home.

The scientific literature shows that pelvic floor muscle exercises as well as behaviour and lifestyle changes can prevent, reduce and even eliminate urine leakage, control the urgent need to urinate, and help you make fewer trips to the bathroom. These exercises can also be beneficial in preventing and treating gas and/or fecal incontinence, reducing genital prolapse-related symptoms, and reducing discomfort during sexual activity.

This book was designed to help you train your pelvic floor muscles yourself so that you can prevent, reduce, or even eliminate these symptoms. Take the time to read the entire book first, paying particular attention to the chapters containing information on behavior and lifestyle changes as well as useful tips. Then, carefully follow the 3-month pelvic floor muscle exercise program. Mastering these

exercises takes patience and motivation. Don't get discouraged and keep at it! When done correctly and regularly, these exercises have been shown to be very effective in women aged 60 and over who suffer from bladder control problems, fecal or gas leakage, as well as genital prolapse and discomfort during sexual activity. These results¹ were obtained in clinical studies carried out by our Canadian Research Chair in Urogynecological Health and Aging at the Research Centre of the Institut universitaire de gériatrie de Montréal (Montreal University Institute of Geriatrics). These exercises can be effective for you too!

However, if you still have urinary symptoms after doing this exercise program for three months, talk to your doctor or consult a physiotherapist specialized in pelvic floor muscle rehabilitation. They will advise you on the different treatments for urinary incontinence. Most of all, don't suffer in silence. You're not alone!

In this book, you will find:

- Information on urinary and gynecological health, useful tips, and lifestyle recommendations that can help prevent and even reduce these problems.
- An intensive 3-month exercise program for your pelvic floor muscles with instructions on how to perform the exercises to tone and strengthen these muscles.
- A maintenance exercise program to help you continue to increase or maintain your pelvic floor muscle strength.

1. Dumoulin, C., M. Morin, C. Danielli, L. Cacciari, M. Mayrand, M. Tousignant and M. Abrahamovick. "Group-Based Versus Individual Pelvic Floor Muscle Training to Treat Urinary Incontinence in Older Women". *JAMA Internal Medicine*, Aug. 2020: 180(10): 1284-1293.

1

Anatomy of the Pelvic Organs, Pelvis and Pelvic Floor

Below are some useful definitions to help you better understand the exercises and advice in this book (*see Figures 1.1 and 1.2 on pages 22 and 23*).

Anus: An opening at the end of the rectum through which solid waste matter is excreted.

Bladder: An elastic sac that acts as a container to receive and collect urine from the kidneys.

Coccyx: A small triangular bone at the lower end of the spine that forms the posterior pelvis.

Detrusor: A smooth muscle found in the wall of the bladder. The detrusor plays an important role in urine elimination.

Diuresis: The volume of urine secreted by the kidneys in a given period.

Pelvic floor muscles: The three layers of muscles at the base of the pelvis. They support the pelvic organs, maintain continence, and play a role in sexual activity.

Pelvic organ: An organ at the base of the abdomen (e.g., the bladder, uterus and rectum).

Pelvis: A wide funnel-shaped group of bones at the level of the hips. The pelvic floor muscles attach to the pelvis.

Perineum: The lowest part of the pelvic outlet.

Pubis: The bone at the front of the pelvis.

Rectum: The end segment of the large intestine.

Urethra: The small tube that links the bladder to the urethral meatus. The urethra eliminates urine from the body.

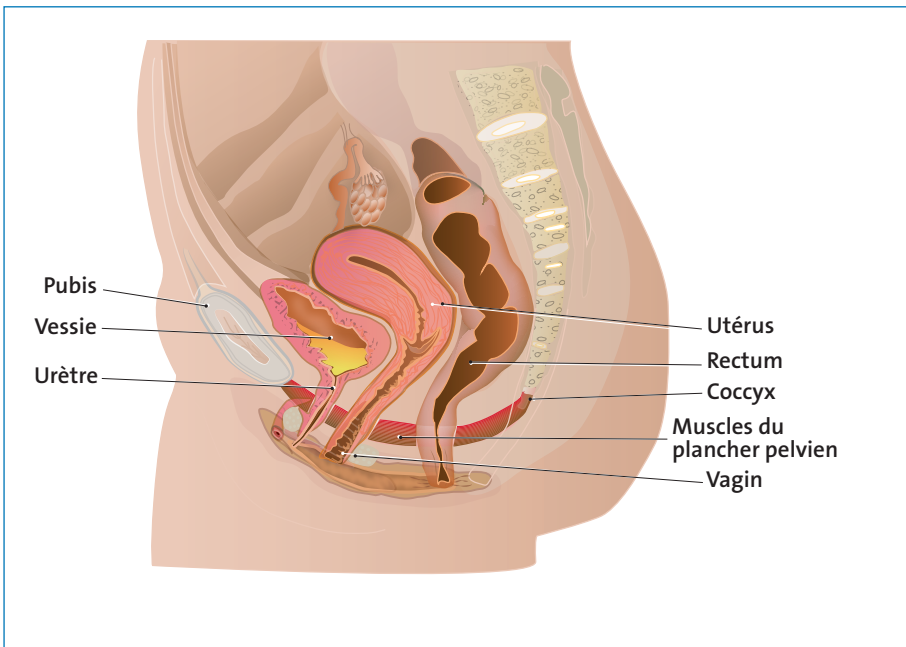
Urethral sphincter: The muscle surrounding the urethra. It plays an important role in maintaining urinary continence.

Urinary meatus: The external opening at the end of the urethra where urine is excreted.

Urination (or micturition): The natural elimination of urine through the emptying of the bladder.

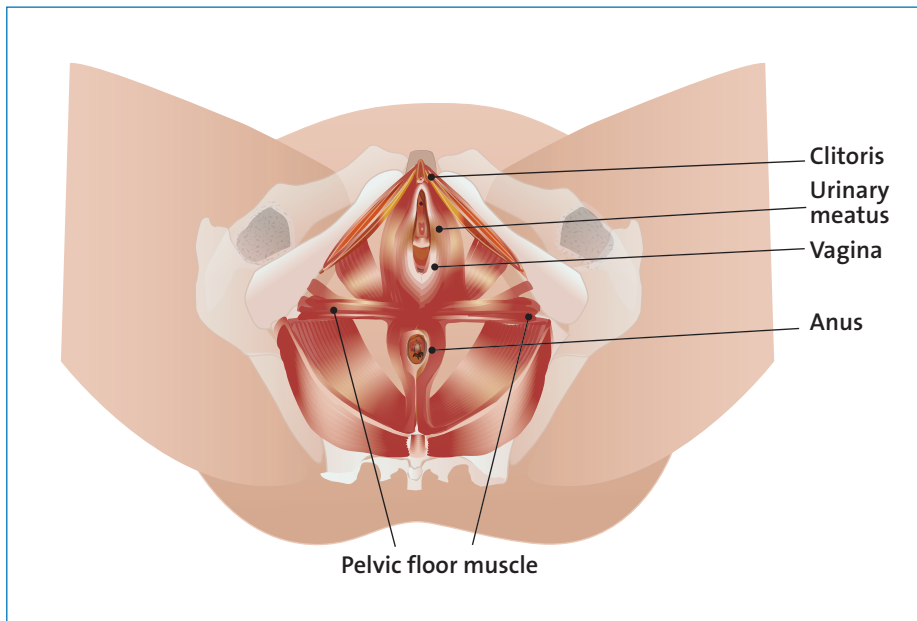
Vagina: A canal extending from the uterus to the external genitalia.

Figure 1.1 | Main structures involved in pelvic floor function



Viewed from outside the body, the female perineal region has three orifices: the urinary meatus (where urine exits the body), the vagina and the anus (where feces and gas are eliminated). This area also has muscles that come together to form the pelvic floor.

Figure 1.2 | View of under the pelvic floor showing the 3 openings and the pelvic floor muscles



Pelvic floor muscles

The goal of the exercise program in this guide is to help you tone and strengthen your pelvic floor muscles, and to improve their endurance and coordination.

Where are the pelvic floor muscles located?

The pelvic floor muscles consist of three layers of muscle that form the base of the pelvis. Stretching like a hammock between the pubic bone and the tail bone, these muscles play a major role in holding in urine, gas and stool. They help support the pelvic organs

such as the uterus and bladder and play an essential part in the female orgasm (see *Figures 1.1 and 1.2 on pages xx and xx*). During a voluntary contraction, the pelvic floor muscles move forward and upward. This causes the organs (bladder, uterus and rectum) to move inside the pelvis and pushes the urethra, vagina and rectum forward, i.e., against the pubis.

A strong and toned pelvic floor that has endurance and coordination helps:

- › Support the pelvic organs (bladder, uterus and rectum)
- › Compress the urethra during physical effort and urgent needs to urinate, thereby preventing leaks of urine, gas and stool

How to identify your pelvic floor muscles as you contract them

Sitting comfortably on a chair, relax the muscles of your buttocks, thighs and abdomen and take a moment to feel the chair against your perineum. Then, contract your pelvic floor muscles as though you are trying to hold in urine and gas. If you have contracted these muscles properly, you will feel them being drawn into your pelvis and away from the chair (upward movement). This indicates that your pelvic floor contraction is effective. However, if you feel your muscles press against the chair (downward movement), then you are pushing your pelvic floor muscles outward (as if passing stool) instead of contracting them.



Be careful! It is important to understand how to properly contract your pelvic floor muscles before repeating the movement. Pushing outwards could weaken your pelvic floor muscles even more.

To make sure that you are correctly contracting these muscles, place your hand between the chair and your perineum to better feel the contraction.

If you still aren't sure whether you are contracting the right muscles, try the exercise while taking a bath. While in the tub, insert a finger into your vagina and contract your pelvic floor muscles. If you feel your finger being drawn inwards, your pelvic floor muscle contraction is effective. If your finger is pushed out, then you are pushing your pelvic floor muscles outward (as if passing stool) rather than contracting them. (*See Chapter 3 for more details.*)

If you still can't contract your pelvic floor muscles, ask a physio-therapist who specializes in pelvic floor rehabilitation to teach you how to do the contraction effectively.

Question

Is urinary incontinence part of the normal aging process? Discover the answer in the next chapter.

.....

2

Definition and Physiology of Urinary Continence

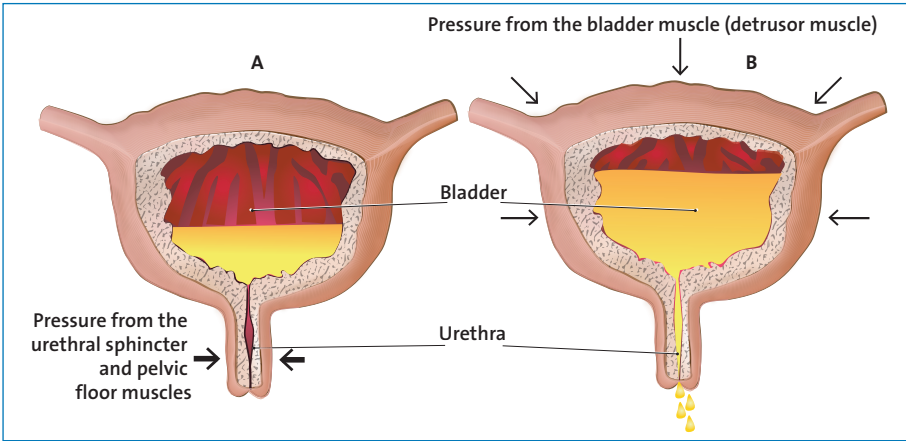
Urinary Continence

Urinary continence is defined as the voluntary control of bladder function¹. The urethral closure pressure (the pressure that keeps the urethra closed) is greater than the pressure in the bladder (*see Figure 2.1A on page 28*). This allows urine to be held in the bladder between trips to the bathroom. Different anatomical structures, such as the urethral sphincter and pelvic floor muscles, maintain the urethral closure pressure.

During voluntary urine elimination, the relaxation of the urethral sphincter and pelvic floor muscles, as well as the contraction of the “detrusor muscle” (the muscle that surrounds the bladder), allow urine to flow into the urethra (*see Figure 2.1B on page 28*).

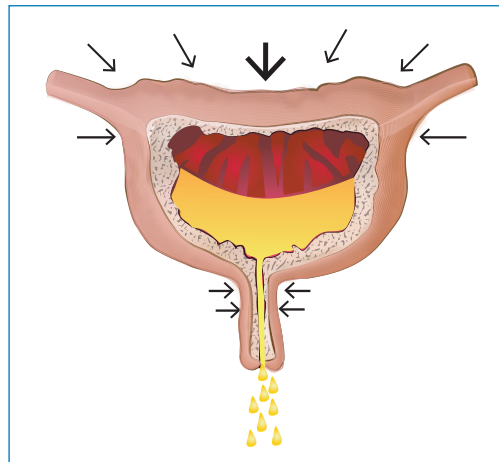
1. Haylen B. T., D. de Ridder et al. “An International Urogynecological Association (IUGA)/International Continence Society (ICS) Joint Report on the Terminology for Female Pelvic Floor Dysfunction.” *Neurourology and Urodynamics*, 2010: 29 (1): 4-20.

Figure 2.1 | **A** • Urethral and bladder pressure during bladder filling
B • Voluntary urine elimination



Pressure increases in the bladder as it gets filled. Pressure in the abdomen (like when you cough or sneeze) adds to the existing pressure in the bladder. The higher the pressure, the stronger your pelvic floor muscles have to be to keep the urethra closed. Women with weaker pelvic floor muscles therefore can't retain as much urine in their bladders. They may also experience urine leakage when the pressure inside the bladder exceeds the pressure keeping the urethra closed (see Figure 2.2).

Figure 2.2 | Urinary Incontinence



How the bladder works

The bladder expands as it fills and contracts when it empties. It has to work with your pelvic floor muscles, which control the opening and closing of the urethra. This means that your pelvic floor muscles help prevent urine leakage. Pelvic floor muscle contractions increase pressure on the urethra to keep it closed and prevent leaks. This type of contraction also relaxes the bladder detrusor muscle. When the detrusor muscle is contracted, it can create an urgent need to urinate. When toned and strong, the pelvic floor muscles can ease the contractions of the detrusor muscle and therefore control the urgent need to urinate and urgency incontinence and help you delay going to the bathroom. *(For more information on how to control urgent needs to urinate, refer to Chapters 4 and 7.)*

What is urinary incontinence?

According to the International Continence Society (ICS), urinary incontinence (UI) is defined as the “involuntary loss of urine that can create a social or hygienic problem and is objectively demonstrable².”

The different types of urinary incontinence

Stress urinary incontinence (SUI)

- › An involuntary loss of urine on effort or physical exertion, sneezing or coughing. It mainly results in the loss of small quantities of urine. This type of urine loss occurs when pressure in the bladder is higher than the pressure in the urethra.

2. Haylen, *Op.cit.*

Urgency incontinence (UI)

- › An involuntary loss of urine accompanied or immediately preceded by an urgent need to urinate. It generally results in heavy urine losses that may include the entire contents of the bladder. This type of incontinence happens when the bladder detrusor muscle contracts and creates an urgent need to urinate.

Mixed incontinence (MI)

- › An involuntary loss of urine associated with both effort or physical exertion, sneezing or coughing (stress incontinence) and an urgent need to urinate (urgency incontinence).

Stress, urgency and mixed urinary incontinence are the most common types of incontinence in women aged 60 and over.

Overflow incontinence

- › An involuntary loss of urine associated with a distended (stretched) bladder caused by either a blockage between the bladder and urinary meatus (e.g., due to constipation or an enlarged prostate in men) or the bladder's inability to contract properly (e.g., due to a neurological illness, prolonged bed rest, surgery, urinary infection, or some types of medication). Urine loss can occur spontaneously or with effort and can drip slowly or continuously.

Functional incontinence

- › Involuntary urine leakage that is not associated with a urinary disorder. This occurs when people can't or won't use a bathroom properly, e.g., because they can't get to the bathroom in time due to pain, a lack of muscle strength or balance, reduced mobility, or because they no longer know how to use the bathroom due to cognitive problems (dementia related to Alzheimer's or another disease).

Nocturnal incontinence

- › Involuntary loss of urine that occurs during sleep.³

Other urinary system problems

Urinary frequency (pollakiuria)

- › Higher than normal frequency of urination.

Nycturia or nocturia

- › A need to urinate that forces the individual to wake up one or more times at night. Each void is preceded and followed by sleep.

Urinary urgency

- › A sudden urgent need to urinate which is difficult to postpone.

Is urinary incontinence more common among older women?

Urinary incontinence is one of the most common health problems among older women. After age 60, 30% to 50% of women suffer from urinary incontinence. Of these women, 20% to 25% experience severe symptoms (more than 10 episodes per week).⁴

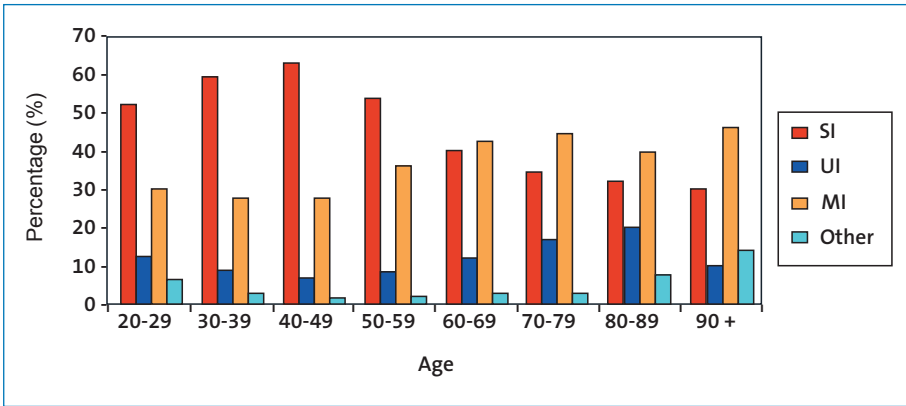
This condition is not part of the normal aging process, which means you shouldn't listen if someone says, "It's normal to have bladder problems at your age."

3. Haylen, *Op. cit.*

4. Abrams, P. et al., *Incontinence*, 5th edition. 5th International Consultation on Incontinence, 2013.

Table 2.1 shows that the type of urinary incontinence in women age 60 or younger is mainly stress incontinence (red bar), whereas older women tend to suffer more from mixed incontinence (orange bar).

Table 2.1 | Percentage of women who experience different types of urinary incontinence (UI) according to age

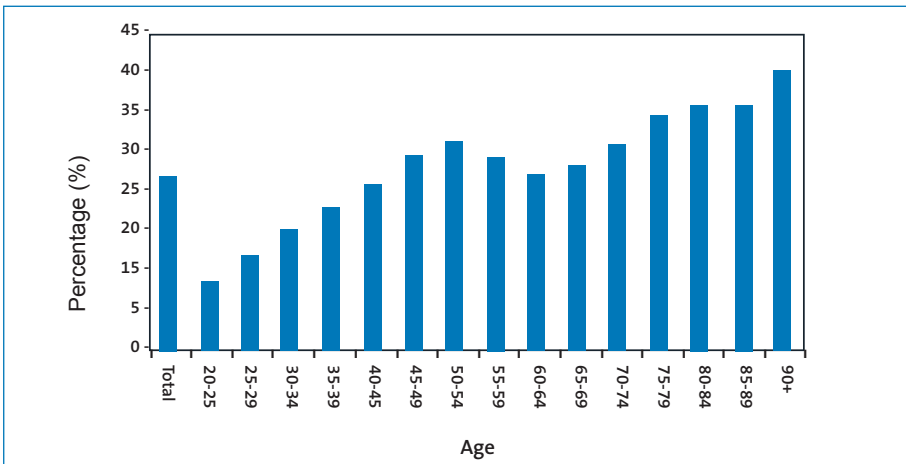


Legend: **SI**: stress incontinence; **UI**: urgency incontinence; **MI**: mixed incontinence.

Source: Hunskar S. et al. "Epidemiology and Natural History of Urinary Incontinence in Women." *Urology*, 2003; 62 (4 Suppl 1): 16-23.

Table 2.2. shows that urinary incontinence increases with age and is more common in women aged 60 and over.

Table 2.2 | Percentage of women with urinary incontinence by age group



Source: Hunskar S. et al. "Epidemiology and Natural History of Urinary Incontinence in Women". *Urology*. 2003; 62 (4 Suppl 1): 16-23.

Below are the various risk factors for urinary incontinence. The main risks will be covered in detail in the next chapters.

Table 2.3 | Risk factors associated with urinary incontinence

Predisposing factors	<ul style="list-style-type: none"> › Family predisposition › Sex › Race › Anatomical, neurological and muscular abnormalities
Secondary factors	<ul style="list-style-type: none"> › Pregnancy › Childbirth › Number of pregnancies
Contributing factors	<ul style="list-style-type: none"> › Obesity › Constipation › Menopause › Urinary tract infections › Lung diseases › Smoking › Chronic cough › Food (bladder irritants) › Neurological diseases › Drugs and medications
Other factors	<ul style="list-style-type: none"> › Age › Dementia and cognitive disorders › Other conditions and environmental changes

Can urinary incontinence be treated in menopausal women?

In most cases, urinary incontinence can be treated effectively. The main treatment options for urinary incontinence include conservative management, medication and surgery.⁵

5. Abrams, P. *Op. cit.*

National and international clinical practice guidelines recommend conservative management as the first-line treatment.⁶ Conservative management should therefore be tried first before medication and surgery. Conservative management includes:

- › Pelvic floor muscle exercises
- › Bladder training and urge suppression techniques
- › Behavior and lifestyle changes

These three aspects will be explained throughout this guide

Question

Is it better to do all the exercises at once, even if you are tired? Or should you do them in several sets and stop whenever you feel tired? Discover the answer in the next chapter.

.....

6. *Ibid.*

3

Training Your Pelvic Floor Muscles: How to Optimize Your Exercises

Identify the movement

For the exercises to be effective, you must make sure that you are engaging your pelvic floor muscles. To do this, lie down on your back. Place one hand between your legs over your pants in the perineum region. Contract your pelvic floor muscles as through you are holding in urine and gas (*see Figures 3.1 and 3.2 on page 36*). If you have done the exercise correctly, you should feel less pressure on your hand as your pelvic floor muscles move into your pelvis (inward) and toward your pubis (to the front). If you feel the muscles push onto your hand (downward), you are not performing the exercise correctly. As mentioned in Chapter 1, it is important to correctly contract your pelvic floor muscles. Doing the opposite movement could further weaken these muscles and even make your urinary symptoms worse. If you can't feel the contraction, you can use the other strategies outlined in Chapter 1, on page 24.

Figure 3.1 | Illustration of the region that activates during a contraction



Figure 3.2 | Contraction of the pelvic floor muscles when lying on your back



Perform a maximum-intensity contraction

Maximum-intensity (strong) contractions are critical to strengthening your pelvic floor muscles. Low-intensity (weak to moderate) contractions, regardless of the number of repetitions, will not strengthen your muscles. It is therefore important that you do a maximum pelvic floor muscle contraction on every repetition while concentrating on the right movement. If your muscles are tired, the contraction won't feel as strong. You should take a break and try again later.

It is important to breathe during the exercise to oxygenate your pelvic floor muscles. Remember to inhale through your nose and then contract your pelvic floor muscles as you exhale. Continue to breathe normally throughout the exercise.

To achieve maximum-intensity contractions:

- › Find a quiet and calm place to do your exercises. You will spend around 20 minutes a day doing them.
- › The exercises will be easier if you do them as part of a regular routine at set times every day. Some women find it easier to divide the exercises into separate sessions (e.g., 10 minutes when you get up in the morning and 10 minutes before supper).
- › It is better to do the exercises in the morning than in the evening, as your muscles will be more tired at the end of the day.
- › You will have to focus on the exercises without any distractions (e.g., don't watch TV at the same time).
- › In addition to your 20-minute pelvic floor muscle exercise routine, practice doing the contractions during your daily activities by doing a perineal lock (“knack”) manoeuvre (see next page) before coughing, sneezing, lifting a heavy object, bending over, getting up from a chair, or any other activity that causes you to leak urine.

Exercise adherence

“Exercise adherence” refers to how well you keep up with the demands of an exercise program and therefore your ability to follow this program’s recommendations. The effectiveness of your pelvic floor muscle exercises depends a great deal on your adherence to the exercises.

The pelvic floor exercise program in this guide should be done **5 days a week** for optimal results. You should gradually see results after **4 to 6 weeks**. You should expect to experience:

- › Fewer trips to the bathroom and reduced urinary frequency during the day and at night.¹
- › Fewer leaks of urine, gas and stool and reduced genital prolapse symptoms.
- › Improved quality of life (more self-confidence when you do activities outside the home).

The Steps of the “Knack” (perineal lock)

To prevent urine leakage during your daily activities, it is important to contract your pelvic floor muscles before and during any activity that causes urine loss. This contraction is called the Knack or perineal lock. The steps are as follows:

1. Contract your pelvic floor muscles.
2. Hold the contraction during activities that require effort (e.g., coughing, sneezing, lifting heavy objects, bending over, getting up from a sitting position, or any other activity that causes involuntary urine loss).²
3. After the effort, slowly relax your pelvic floor muscles.

Question

True or false? Caffeine is a bladder irritant. Discover the answer in the next chapter.

.....

-
1. Dumoulin, C. and C. Tannenbaum. *L'incontinence : brisons le silence*. Québec: Ministère de la Famille et des Aînés, 2009.
 2. Bryant, C. M., C. J. Dowell and G. Fairbrother. “Caffeine Reduction Education to Improve Urinary Symptoms”. *British Journal of Nursing*: Mark Allen Publishing, 2002: 11(8): 560-5.

4

Bladder Irritants

Below is a list of foods and drinks that irritate the bladder, which may increase how often you go to the bathroom and/or your urinary incontinence.

Caffeine

Found in coffee, tea, chocolate and dark soft drinks, like cola.

Tip

To reduce your urinary frequency and incontinence, limit your caffeine intake to 100 mg a day,¹ which is about one cup of coffee.

1. Bryant et al., *Caffeine Reduction*.

Table 4.1 | Caffeine content of different foods

Drink or food	Caffeine concentration (mg) in 175-mL (6-oz.) portions for beverages and 56-g (2-oz.) portions for chocolate
Filtered coffee	108 to 180
Regular instant coffee	60 to 90
Decaffeinated instant coffee	Less than 6
Tea (weak)	18 to 24
Tea (strong)	78 to 108
Carbonated drink (can)	28 to 64 (in 355 ml or 12 oz.)
Dark chocolate (56 g or 2 oz.)	40 to 50
Milk chocolate (56 g or 2 oz.)	3 to 20

Other foods that can irritate the bladder

- › Spicy foods (Mexican, Thai, Indian and Cajun)
- › Acidic foods (fruits and fruit juices high in acid: orange, lemon, grapefruit, lime and pineapple)
- › Tomatoes (tomato juice and tomato sauces: spaghetti, pizza, barbecue and chili)
- › Artificial sweeteners (aspartame, sucralose)
- › Alcohol

Tip

Reduce—or even eliminate—your intake of these foods for 1 to 2 weeks to determine their impact on your urinary frequency and incontinence. Once you have a good idea of their actual impact on your bladder, you can choose when to consume them (e.g., eat or drink them at home instead of at a restaurant before going to the movies). You can also make sure you do not have several irritants in the same meal.

Tips for staying hydrated and preventing urinary tract infections

Many women with urinary incontinence limit their water and fluid intake, thinking that this will decrease urinary frequency and, in turn, their urinary incontinence. Although it sounds logical, this strategy doesn't work. It is important to stay hydrated, as reduced fluid intake actually increases urinary frequency, urgency and incontinence. In fact, concentrated urine irritates the bladder and causes urine leakage. You should drink at least 1.5 litres of fluids a day and make sure that your urine is pale yellow and clear. However, you should reduce your fluid intake in the evening if you have urine leakage or get up multiple times at night to go to the bathroom. You should also avoid drinking large quantities of fluids over a short period.

- › Gradually get into the habit of drinking enough fluids (at least 1.5 litres a day) and making sure your urine is pale yellow.
- › Avoid holding in your urine for too long, and urinate every 3 hours (*see Chapter 7 for more information*).
- › Completely empty your bladder (*see Chapter 7 for more information*).
- › Always urinate after sexual intercourse.
- › Always wipe from front to back.

How to control the urgent need to urinate

When you have an urgent need to urinate, take the following steps to control or eliminate the need:

1. **Stop what you are doing!** If possible, sit down. Sitting on a hard seat can help you hold in urine, as this supports your perineum. If you can't sit down, stand up straight and keep still. An urgent need to urinate is easier to control if you avoid hunching over and rushing to the bathroom.
2. Take deep breaths and try to relax.

3. Contract your pelvic floor muscles moderately 8 times if possible or try to hold a moderate contraction for 8 to 10 seconds.
4. Think of something else (e.g., count backwards from 100 or think of a boy's or girl's name starting with each letter of the alphabet). The mind plays an important role in bladder control.
5. If your urgent need to urinate doesn't go away, repeat steps 1 to 4.
6. Wait until the urgent need passes.
7. Once the urgent need has gone, walk to the bathroom without rushing. Otherwise, continue what you were doing.

When you feel an urgent need to urinate, do not get into the position shown in Figure 4.1 (i.e., leaning forwards), as this puts pressure on the bladder, which only increases the urge.

Stay calm and go through steps 1 to 4 described above.

Don't get discouraged if you find it difficult to control an urgent need to urinate. Stay positive and continue to practise.³

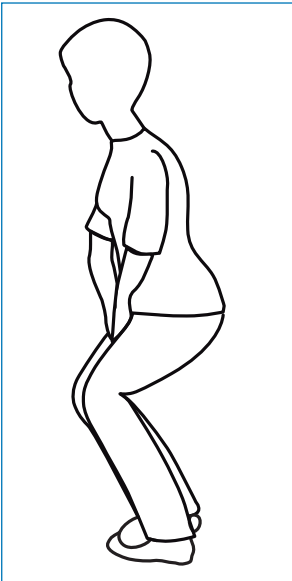


Figure 4.1 | Bad position

3. Dumoulin C., *Avant et après bébé: Exercices et conseils*. Montréal: Éditions du CHU Sainte-Justine, 2011.

Question

True or false? Panty liners are the best protection against urine leakage. Discover the answer in the next chapter.

.....

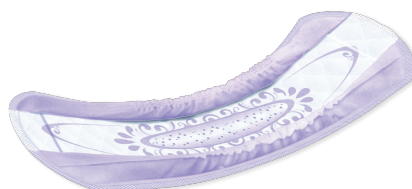
How to Choose the Right Incontinence Products

When you start training your bladder and pelvic floor muscles, wearing incontinence products may be a good idea to protect against unexpected leaks. There are different types of products:

Disposable pads for vaginal secretions (panty liners)



Disposable pads for menstruation and incontinence



Washable (re-usable) pads and pants



Washable underwear



Disposal Pants



Disposable incontinence products are sold at most pharmacies. Washable products are also available at pharmacies and medical supply stores. No single product is perfect for all women. You must be selective and choose the one that best suits your needs (quantity and frequency of urine leakage) and is most comfortable (body shape and skin sensitivity). Table 5.1 below will help you choose the best type of product for you and your lifestyle.

Table 5.1 | Incontinence products

Type of incontinence product	Incontinence severity	Advantages	Disadvantages
Disposable pads for vaginal secretions (panty liners)	Light	<ul style="list-style-type: none"> › Low cost › Adheres directly to underwear › Discreet 	<ul style="list-style-type: none"> › Limited absorption › Protects a small area (does not protect the inner thighs)
Disposable pads for menstruation and incontinence	Light to moderate	<ul style="list-style-type: none"> › Reliable protection › Adheres directly to underwear › Available in different sizes and absorption capacities 	<ul style="list-style-type: none"> › More expensive
Washable pads and pants	Light to moderate	<ul style="list-style-type: none"> › Low cost › Reusable › Adherent to underwear 	<ul style="list-style-type: none"> › Must be washed before each use › Must be thoroughly washed to prevent odours and skin irritation

Type of incontinence product	Incontinence severity	Advantages	Disadvantages
Washable underwear	Light to moderate	<ul style="list-style-type: none"> › Low cost › Protects a larger area › Reusable 	<ul style="list-style-type: none"> › Must be washed before each use › Must be thoroughly washed to prevent odours and skin irritation
Disposable pants	Moderate to severe	<ul style="list-style-type: none"> › Reliable › Protects a larger area › Useful for nighttime leaks 	<ul style="list-style-type: none"> › More expensive › Not as discreet
Washable pants	Moderate to severe	<ul style="list-style-type: none"> › Reliable › Protects a larger area › Reusable › Useful for nighttime leaks 	<ul style="list-style-type: none"> › Not as discreet › Must be washed before each use › Must be thoroughly washed to prevent odours and skin irritation

Choosing the right product is important to not only give you the confidence you want but also protect your skin against moisture. If the sensitive skin in the genital and groin region is not kept dry, you may develop a rash, skin infections and even sores. To prevent these complications:

- › Change your incontinence product as often as necessary.
- › Don't add tissues to these products.
- › Avoid cleansing wipes containing alcohol, as they may dry out your skin.
- › If necessary, apply a barrier cream such as Zyncofax® on the irritated area. This cream provides additional protection and prevents moisture from penetrating the skin.¹

1. Gajewski J., G. Harrison and L. Valiquette. *The Source: Your Guide to Better Bladder Control*. Peterborough: The Canadian Continence Foundation, 2012.

Question

True or false? Regular physical activity helps prevent constipation.
Discover the answer in the next chapter.

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6

Chronic Constipation

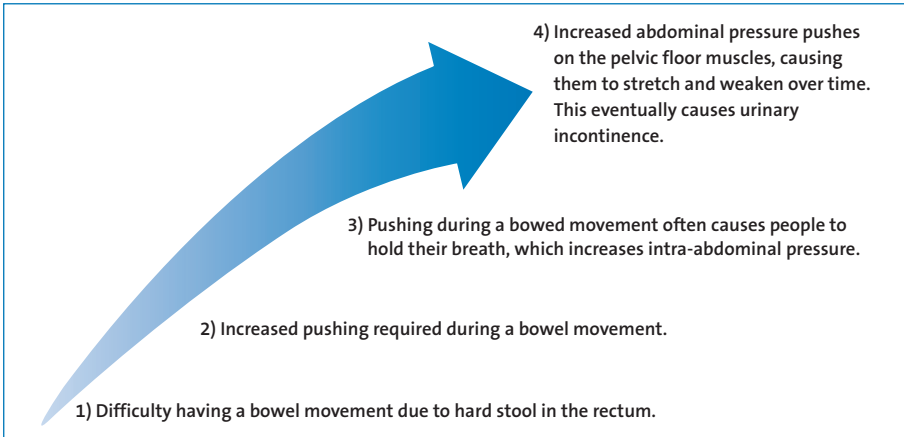
Link between chronic constipation and urinary incontinence

You suffer from chronic constipation if:

- You experience any two of the following bowel movement symptoms for at least 12 weeks of the year (the weeks do not have to be consecutive):
 - Straining during at least 25% of bowel movements
 - Lumpy or hard stools for at least 25% of bowel movements
 - Sensation of incomplete evacuation for at least 25% of bowel movements
 - Sensation of anorectal obstruction/blockage for at least 25% of bowel movements
 - Manual manoeuvre required to facilitate at least 25% of bowel movements (e.g., digital evacuation, support of the pelvic floor)
 - Fewer than three spontaneous bowel movements per week

Figure 6.1 shows the link between chronic constipation and urinary incontinence.

Figure 6.1 | From chronic constipation to urinary incontinence



Lifestyle-related causes of constipation

- › A diet low in fibre
- › Insufficient hydration
- › Sedentary lifestyle, physical inactivity
- › Poor bowel habits, such as ignoring the need to defecate or waiting too long before going to the bathroom

Tips to prevent constipation

- › Drink enough water (at least 1.5 litres a day).
- › Watch your diet:
 - Increase your intake of dietary fibre (*see Table 6.1*). A total of 21 g per day is recommended. However, you should gradually increase your intake of dietary fibre to prevent gas and bloating (increase your intake by about 5 g per week, according to your tolerance).
 - You can also eat prunes and drink prune juice, as these foods promote “intestinal peristalsis” and will help you have a bowel movement. Intestinal peristalsis is the term for successive

waves of involuntary contraction passing along the walls of a hollow muscular structure (in this case the intestine) and forcing the contents onward.

Table 6.1 | Amount of fibre in different foods

Food	Serving	Fibre (g)
All-Bran® cereal, original (wheat bran)	1/2 cup	12 g
All-Bran® Buds cereal, original (wheat bran and psyllium)	1/3 cup	11 g
Fibre 1® cereal	1/3 cup	14 g
Vegetables	2/3 cup	8 to 14 g
Oatmeal	2/3 cup	5 g
Whole grain bread	1 slice	2 g
Avocado	1/2 fruit	7 g
Brussels sprouts	1 cup	6 g
Pears, with skin	1 medium fruit	5 g
Green peas	1/2 cup	5 g
Raw carrots	1 cup	4 g
Apples	1 medium fruit	4 g
Dates	5 dates	4 g

- › Exercise regularly. To get the biggest impact of physical activity on intestinal peristalsis, exercise after a meal.
- › Massage your intestines after each meal (*see Figure 6.2 on page 54*). Use the palm of your hand to perform a deep massage three times making small circular movements:
 1. On your right side, from your pelvis to your ribcage.
 2. Repeat step 1 above and, without lifting your hand, continue massaging toward the rib cage on your left side.
 3. Repeat step 2 above but continue massaging downwards on the left side toward your pelvis.

A number of medications (such as anti-inflammatory drugs, and calcium and iron supplements) can cause constipation. Ask your pharmacist or doctor whether any of your medications may be contributing to your constipation and, if so, whether medications can be stopped or changed.

If your constipation persists despite the non-medication approaches described above, occasionally or briefly taking over-the-counter laxatives [e.g., docusate sodium (Colace®) or senna (Sonokot®)] could help you. If your constipation persists despite occasionally taking a laxative or if you need to take them every day for several weeks, you should talk to your doctor or pharmacist to have your treatment adjusted.

To avoid weakening your pelvic floor muscles, it is important not to hold your breath when straining to have a bowel movement. (*For more information about this topic, see “Correct defecation position and technique” on page 55.*)

To make your bowel movements easier, wait until you feel the urge to defecate. When you feel the urge to go, use the correct position (*see Figure 6.3 and “Correct defecation position and technique” on page 55.*)

Figure 6.2 | Abdominal massage to promote bowel movements

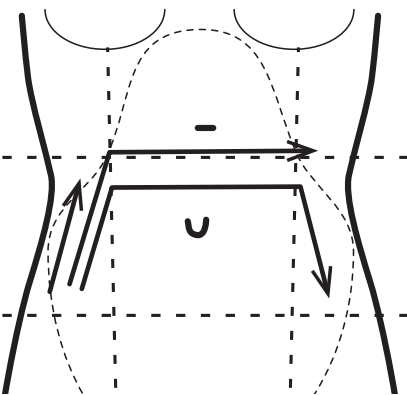


Figure 6.3 | Correct defecation position

Correct defecation position and technique

- › When sitting on the toilet, use an object about 15 cm high, such as a footstool or dictionary, to rest your feet on. Put your feet flat on the object so that your knees are higher than your hips. This position mimics squatting, which is the ideal position for bowel movements.
- › Then, lean slightly forward while keeping your back straight. Make a fist, press your thumb against your mouth and then exhale into your fist. This technique allows you have a bowel movement without excessive straining, as it optimizes the direction of abdominal pressure. It is important not to hold your breath while pushing, as this places too much pressure on your perineum. If you can't pass the stool right away, don't force it out; wait until later when you feel the urge to go again.

It is best to have a bowel movement only when you feel the urge to defecate.

Question

*True or false? It's normal to get up twice per night to urinate.
Discover the answer in the next chapter.*

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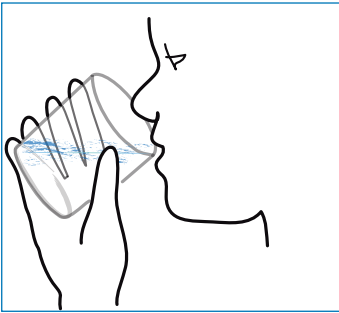
7

Bladder Training

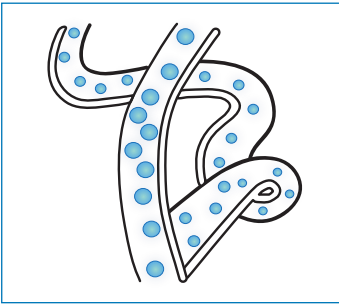
The overall action of eliminating urine is referred to as “diuresis.” Diuresis depends on the amount of water that you consume from liquids and foods. The water you drink goes to your intestines, where it is absorbed by your blood vessels. Your blood is then filtered by the kidneys, which retain the body’s water and waste, which are then stored in the bladder until they can be eliminated. Urine is 95% water. The remaining 5% consists essentially of urea (a waste product from the breakdown of protein) and sodium chloride (salt).

When you urinate, you generally eliminate about 250 mL of liquid. It is therefore normal to urinate 5 to 7 times a day. However, water (which is essential for our bodies) is not completely eliminated in urine. Our bodies also secrete a hormone called “antidiuretic hormone” (ADH), which allows water to be reabsorbed into the bloodstream. This hormone is more active at night, which is why you don’t usually feel the need to urinate when you sleep.

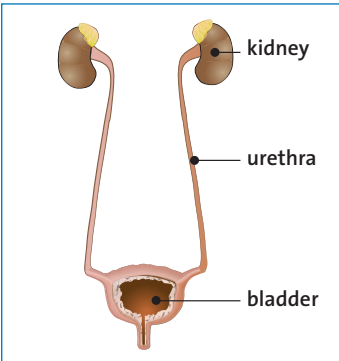
Figure 7.1 | The path of water through the body



Water is **ingested**.



Water in the intestines is **absorbed** by the blood vessels.



The **kidneys** filter the blood in the blood vessels, and absorb water and waste from the body, which are then stored in the bladder as urine.



Urination: Elimination of urine via the urethra.

As we age, our bladder capacity decreases, which is why bladder control problems, such as urgency and increased urinary frequency, become more common during the day. ADH production also decreases with age. As a result, older women experience a higher frequency of urination at night.

Blood circulation problems, which are more frequent with age, can also increase the frequency of urination at night. Poor circulation may lead to an accumulation of fluids (edema or swelling) in the lower limbs (particularly the legs and ankles). Lower-limb edema is aggravated by standing, which is why most people experience swelling at the end of the day. However, when they lie down, blood circulation in their lower limbs (legs and ankles) is improved by the horizontal position. However, the bladder therefore becomes more active, which means you feel the need to urinate!

You can reduce lower-limb edema by wearing compression stockings or by keeping your legs elevated for half an hour during the day to help fluids gradually filter and thus reduce your need to urinate at night.

After age 60, you should expect to:

- › Get up once or twice a night to urinate
- › Urinate about every 2.5 to 3 hours during the day

Do you need to train your bladder?

If you experience the following signs or symptoms in your daily life, this means you have a problem and should train your bladder:

1. You have to get up more than twice during the night to urinate and this affects your sleep.
2. You need to urinate more than every 2.5 hours during the day.
3. You always look for a bathroom whenever you go someplace new.
4. You have significant urine loss that forces you to change your underwear.
5. You hesitate to leave the house or to plan activities that will take more than 2 hours when you don't know if you will have access to a bathroom.

Bladder training program

The goal of bladder training is to gradually increase your bladder's capacity to:

- › Store more urine and thereby increase the time between bathroom visits
- › Reduce how often you go to the bathroom at night
- › Better control the urgent need to urinate

This program is for anyone who experiences increased urinary frequency or who struggles with urgent needs to urinate that result in urine leakage.

In Chapter 4, we described techniques to suppress urgent needs to urinate. With this program, and by using the techniques that you learned earlier in this book, you can “train” your bladder so that you can hold urine for longer. To be effective, this bladder training program must be followed for at least 12 weeks.

Because the techniques will be new to you and because your pelvic floor muscles are weak, the exercises may not be fully effective right away. You may experience some urine leakage while practising urge suppression techniques. This is why it is important to begin the bladder training program in a place where you feel comfortable, such as at home. Once you have mastered these techniques, you can incorporate them into your daily activities and use them wherever you are.

How to time bathroom trips farther apart

1. Calculate the time interval between trips to the bathroom to urinate.
2. If you feel the need to urinate but you went to the bathroom less than 2.5 hours ago, try to hold it in by using the techniques described in Chapter 4: stop (and sit if possible); relax and do quick, moderate and repetitive contractions of your pelvic floor muscles (8 times) or try to hold a moderate contraction for 8 to 10 seconds; and, lastly, think about something else.
3. If the urgency passes, continue what you were doing. If your need to urinate is less intense and you feel you can wait, put off going to the bathroom for another 5 minutes. If your need to urinate is still urgent, repeat step 2. The goal is to delay micturition by 5 minutes.
4. Do this exercise whenever you feel the need to urinate during the day and when your last trip to the bathroom was less than 2.5 hours ago.
5. Each week, increase the time in between urinations by an additional 5 minutes.
6. The goal is to urinate only about every 2.5 to 3 hours during the day.

Takeaways

- › Try to urinate only when you actually need to. You will gradually learn to differentiate between a false need (urgency without a full bladder) and a real need to urinate (a full bladder).
- › Do not go to the bathroom “just in case,” unless, for example, you are going to run errands for a while or you are going to bed. Doing this over time may reduce your bladder capacity.
- › Take the time to empty your bladder so that it is completely drained. When you are rushed or poorly seated on the toilet, you likely won’t be able to completely empty your bladder (*see “Avoid post-urination dribble” on page 63*).
- › Avoid pushing to empty your bladder, as this can weaken your pelvic floor muscles over time.
- › Avoid excessive fluid intake 3 to 4 hours before bedtime, and empty your bladder before going to bed.

Be careful! The following factors may increase urine leakage episodes and urgency, and decrease your bladder’s capacity to hold urine:

- › Fatigue
- › Urinary tract infection
- › Feeling anxiety or stress, being emotional
- › Cold damp weather
- › Illness

You need to be aware of your physical and mental health to better predict increases in urine leakage and urgency. It may be best to wear incontinence products when you are feeling unwell.

Avoiding post-urination dribble

To avoid post-urination dribble (i.e., urine leakage when you get up from the toilet after urinating or shortly after), you need to make sure that you completely empty your bladder whenever you urinate.

Take your time to sit on the toilet (*see Figure 7.2*) and urinate without pushing. When you have finished, bend forward and back a few times. The back-and-forth motion will tip a slightly prolapsed bladder (*see Chapter 9, page 69*) and help to completely empty it.



Figure 7.2 | Good toilet position for urination

Question

True or false? Women who are overweight have a greater risk of developing stress incontinence. Discover the answer in the next chapter.

.....



8

Risk Factors

Here is a list of the main factors that can increase the risk of urine leakage.

Smoking

Smoking has an impact on urinary incontinence. Tobacco has an adverse effect on some hormones, like estrogen. This in turn reduces the function of the urethral sphincter (part of the pelvic floor muscles), thereby increasing the risk of urine leakage. Smoking can also cause involuntary bladder contractions and increase the urgent need to urinate).¹ Smoking also increases the risk of developing a chronic cough, another factor that can cause urinary incontinence (*see “Coughing” on page 66*).

1. MacDonald D. R. *In Control Again, A Personal Workbook*. 3rd edition, Capital Health, 2003.

Tip

You are strongly advised to stop smoking. To quit, you can ask your doctor or pharmacist for help. You can also join a quit-smoking support group. Peer support is often key to help you change your behaviour.²

Coughing³

A chronic cough, which can be caused by lung disease, smoking or other factors, can affect your bladder. When you cough, abdominal pressure increases, creating downward pressure on the bladder. This can cause stress urine leakage. If your cough is chronic, it can significantly weaken your pelvic floor muscles in the long term.

Tips

You should reduce or eliminate any factors causing your cough, such as smoking. If your cough persists, consult a doctor.

Remember to do the Knack or perineal lock (*see Chapter 3, page 38*), which consists in contracting your pelvic floor muscles before and while you cough.

Body weight

Women who are overweight have a higher risk of developing stress urinary incontinence because the extra weight puts constant pressure on their bladder and pelvic floor muscles. This can stretch and weaken them.

-
2. Quit to Win! Challenge. [Online]. Montréal: Capsana. [Last updated July 25, 2015; retrieved July 26, 2015]. Website: defitabac.qc.ca/en
 3. Canadian Lung Association. [Online]. *Chronic Cough*. [Last updated August 28, 2014; Retrieved July 27, 2015]. <https://www.lung.ca/lung-health/lung-disease/chronic-cough>

Table 8.1 | Risk of developing urinary incontinence in adult women by excess weight⁴

Weight	Increased risk
Overweight	2 times
Moderate obesity	3 times
Severe obesity	4 times
Morbid obesity	5 times

Tips

You should lose weight and/or maintain a healthy weight, as this will relieve pressure on the bladder and pelvic floor muscles and reduce urinary incontinence.

If you need to lose weight, start by eating a healthy diet and exercising regularly.

If needed, consult a nutritionist to get a diet plan and a kinesiologist to get an exercise program adapted to your needs.

Exercise

As previously discussed, exercise is beneficial in many ways. However, some types of activities or exercises (such as running and jumping) may increase the risk of urinary incontinence.

4. Hannestad Y. S., G. Rortveit, A. K. Daltveit and S. Hunskaar. "Are Smoking and Other Lifestyle Factors Associated with Female Urinary Incontinence? The Norwegian EPINCONT Study." *BJOG: An International Journal of Obstetrics and Gynaecology*, 2003; 110 (3): 247-54.

Tips

Here are some tips to follow when doing physical activities:

- › To reduce the pressure on your pelvic floor muscles and bladder, avoid holding your breath when picking up weights and exhale while lifting.
- › Avoid high-impact activities such as jumping and running until your pelvic floor muscles are retrained, as the repeated impact on your pelvic floor muscles can weaken them. Instead, try walking, cycling or swimming.

Question

What is “genital prolapse”? Discover the answer in the next chapter.

Genital Prolapse and Symptoms Related to Menopause

Genital prolapse occurs when a pelvic organ such as the bladder, uterus or rectum drops (prolapses) from its normal place in your lower belly and pushes against the walls of your vagina. (*see Chapter 1, page 21 for definitions of these organs*). Genital prolapse is very common, with one woman in three suffering from this condition in their lifetime.

Below are the main causes of genital prolapse:

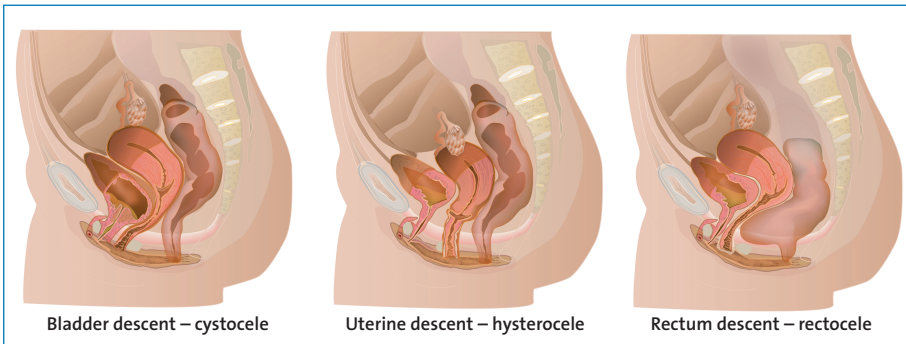
- › Menopause
- › Pregnancy and vaginal delivery
- › Constipation
- › Excess weight and obesity
- › Chronic cough

All of these risk factors weaken the pelvic floor muscles, ligaments and other tissues. The pelvic organs' support depends on the integrity and proper functioning of the pelvic floor muscles, ligaments, and other tissues. Adopting a healthy lifestyle is therefore important to better manage controllable factors such as excess weight, obesity and a chronic cough related to smoking (*see Chapter 8, page 65*). There are different types of prolapse in women (*see Table 9.1, on page 70*).

Table 9.1 | Most common types of prolapse

Cystocele	Bladder descent
Hysterocele/uterine	Uterus descent
Rectocele	Rectal descent

Figure 9.1 | Different types of prolapse: cystocele, hysterocele or uterine, and rectocele



There are also different stages of prolapse defined by the severity of the organ’s descent, which are classified according to the Baden-Walker scale.

Table 9.2 | Prolapse stages

Stage 1	Prolapse does not reach the vaginal introitus (opening)
Stage 2	Prolapse reaches the vaginal introitus, but does not extend beyond it
Stage 3	Prolapse extends beyond the vaginal introitus
Stage 4	Prolapse extends completely outside the vagina

Symptoms of genital prolapse

- › A sensation of heaviness or a presence in the vagina
- › A sensation of pain in the perineum
- › Pain during vaginal penetration
- › Sensation of having an overly full rectum
- › Lower back pressure
- › Trouble urinating (pain)
- › Incomplete urine evacuation
- › Urinary incontinence
- › Fecal incontinence
- › Constipation

Treatments for genital prolapse

Treatment for this condition depends on the type and severity of the prolapse. Pelvic floor exercises are generally recommended as first-line treatment for those with lower-grade prolapses. If need be, consult a physiotherapist who has expertise in perineal and pelvic floor muscle training.¹ If exercises alone are not enough, a pessary (a device inserted into the vagina to support, or hold up, descending organs) may be an option. If symptoms are severe and nonsurgical treatments haven't helped, surgery may be considered. Talk to your doctor to find out more about pessaries and surgery.

1. Hagen S. and D. Stark. "Conservative Prevention and Management of Pelvic Organ Prolapse in Women." *Cochrane Database of Systematic Reviews*. 2011(12): Cd003882.

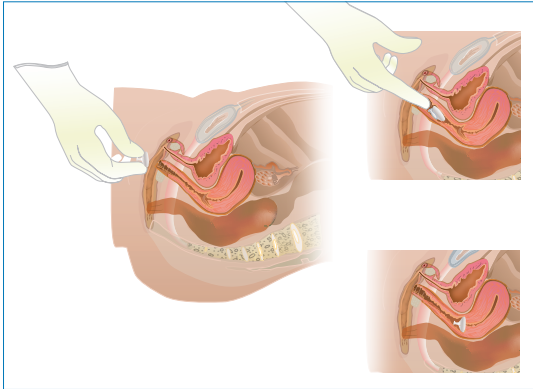


Figure 9.2 |
Insertion of a pessary
into the vagina to hold up
uterine prolapse

Urinary and gynecological symptoms related to menopause

Vulvovaginal atrophy²

Vulvovaginal atrophy results from the thinning of the skin and tissues of the vulva and vagina. This thinning is caused by a decrease in estrogen related to menopause. Estrogen is a female sex hormone secreted by the ovaries. It regulates the reproductive function in women and preserves skin elasticity. Vaginal dryness is usually the first symptom of vaginal atrophy. It is caused by a decrease in the mucus (lubrication) secreted by the vaginal glands. Vaginal dryness, combined with the thinning of the skin of the vulva and vagina, can cause hypersensitivity in this area. This hypersensitivity may make even the slightest friction, such as rubbing from your underwear, painful. Similarly, vaginal penetration during sex can be very uncomfortable. This may lead to a decreased interest in sex.

2. The Society of Obstetricians and Gynaecologists of Canada. "Managing Menopause." *Journal of Obstetrics and Gynaecology of Canada*. September 2014: 36(9).

This condition is very common, as it affects 39% to 63% of post-menopausal women.³ Pelvic floor exercises seem to have a positive effect on discomfort and irritation in the vulva and vaginal area, as they increase blood circulation to the perineal region, which may also help decrease dryness in this area. When you begin your pelvic floor exercises, increased friction of the vaginal walls may produce irritation and discomfort. However, this irritation will decrease gradually as you continue to do the exercises.

If the exercises are painful at first, reduce the frequency and number of repetitions, wait longer between sessions, then slowly increase your repetitions. You will eventually be able to do all your exercises without any pain or discomfort.

Atrophic urethritis

“Atrophic urethritis” means the atrophy or thinning of the mucosa of the urethra due to menopause. This condition is characterized by irritation of the urethral mucosa and can cause urgency incontinence, increased urinary frequency, urgent needs to urinate, and pain during urination, even without an active urinary tract infection.

Tips for alleviating symptoms of discomfort and irritation in the vulva and vaginal area and atrophic urethritis

Hygiene tips

- › Use mild soap.
- › Avoid using scented sanitary products or other scented products (bubble bath, creams or soaps) that come into contact with the vulvar area.

3. Parish S. J., R. E. Nappi., M. L. Krychman, S. Kellogg-Spadt, J. A. Simon, J. A. Goldstein and S. A. Kingsberg. “Impact of Vulvovaginal Health on Postmenopausal Women: A Review of Surveys on Symptoms of Vulvovaginal Atrophy.” *International Journal of Women’s Health*, 2013: 5: 437-47.

- › Avoid getting shampoo on the vulvar area.
- › Use white, non-recycled and unscented bathroom paper.
- › Pat your vulva dry; do not rub.
- › It is important to keep the vulva dry. If it tends to get damp (due to urine leakage), keep a second pair of underwear in a small bag so that you can change during the day as needed.
- › Use a water-based lubricant during sexual intercourse.

Laundry tips

- › Use gentle, unscented detergents for your underwear or any other clothing that comes in contact with your vulvar area (e.g., pyjama pants, exercise clothing, bath towels).

Clothing tips

- › Wear white 100% cotton underwear to let air circulate and moisture escape.
- › Do not wear pantyhose; socks that go up to your thighs or knees are recommended.
- › Avoid elastane (e.g., spandex, Lycra®) or any other tight clothing when you exercise.
- › Quickly take off any wet clothing, like bathing suits or workout clothes.

If you follow these tips yet still experience symptoms, talk to your doctor.

Question

How can I reduce my need for incontinence products? Discover the answer in the next chapter.

Good Riddance to Incontinence Pads!

You saw in previous chapters how you can control your urgent need to urinate and reduce your urine leakage by training your pelvic floor muscles. It is normal to have to use sanitary napkins, panty liners or other products as you start your training program. The goal of pelvic floor rehabilitation exercises is to tone and strengthen your pelvic floor muscles and improve their coordination and endurance so that you can effectively activate them during any activity or situation that could cause urine leakage and control urgency through strong and repeated contractions of the pelvic floor muscles. After you regularly practise these exercises, you should feel more confident in your ability to prevent urine leakage, no matter where you are or the time of day. This will help you gradually reduce your need for incontinence products.

Follow these steps to reduce your use of incontinence products:

- › Note the times during the day or week when you use incontinence products.
- › Gradually decrease the amount of time you wear these products and start in a familiar environment, like your home.

- › Completely eliminate these products when you are at home.
- › Gradually decrease how often you use them when you leave the house; for example, take a 15-minute walk without a panty liner or protection.
- › Gradually increase the time you spend outside the house without protection (for example, take a 30-minute walk instead of a 15-minute one; when you feel ready, go grocery shopping without a pad).
- › Completely stop using these products wherever you go.

To help you feel more at ease as you eliminate your use of incontinence products, always keep a change of underwear in your handbag.

Question

How many times per week do I need to do the exercises to keep my pelvic floor muscles strong? The answer is in the next chapter.

11

Keep It Up!

The last phase in any muscle-strengthening program is maintaining your results. This means following the exercise program on a regular basis. This is very important in order to maintain your results from the 12-week program. Doing the exercises 3 times¹ per week is enough to maintain good muscle strength after intensive training.

Note that after a bout of constipation or the flu or any other time you feel that your muscles have weakened, you can increase your pelvic floor muscle exercise frequency up to 5 times per week.

The exercises recommended for the maintenance phase are more difficult, because the contraction time is longer and they are done in a forward lunge, a functional position similar to walking. You will find these exercises on page 83.

It is also important to maintain a healthy lifestyle (diet, hygiene and exercise).

-
1. Bo, K. "Pelvic Floor Muscle Training Is Effective in Treatment of Female Stress Urinary Incontinence, but How Does It Work?" *International Urogynecology Journal and Pelvic Floor Dysfunction*, 2004: 15(2): 76-84.

Figure 11.1 | Benefits of following a pelvic floor exercise program and maintaining a healthy lifestyle



Remember

- › Be mindful of situations that weaken the pelvic floor muscles:
 - Chronic coughing or sneezing (*see Chapter 8*)
 - Constipation (*see Chapter 6*)
 - Obesity (*see Chapter 8*)
 - Physical activities that increase abdominal pressure (*see Chapter 8*)
- › Consult your doctor if you have allergies, bronchitis or other respiratory conditions that make you cough or sneeze repeatedly.
- › Prevent constipation by drinking 1.5 litres of water a day, increasing the amount of fibre in your diet (eat fruits and vegetables daily), and walking regularly (*see Chapter 8*).

- › Wait until you feel the urge to have a bowel movement and then sit on the toilet with your feet flat on the floor or a stool and your body leaning slightly forward. If you do not have a movement right away, contract your stomach and blow into a closed fist. Try not to hold your breath. If you can't pass the stool right away, don't force it; wait until later when you feel the need again (*see Chapter 8*).
- › Maintain a healthy weight by adopting a healthy diet and staying physically active (*see Chapter 8*).
- › Do not hold your breath during physical exertion (i.e., lifting a weight). Make sure you exhale during effort instead.

Part 2
Pelvic Floor Muscle Exercise Program

Weeks 1 to 4

The following 4 exercises should be done for 4 weeks. They might seem difficult at first, but they will become easier with time and practice. First, choose a time of day when you have 20 minutes of peace and quiet and make this a daily activity. It is recommended that you don't do any other activity during the exercises (such as watching television, reading, etc.).

Every day, after completing the exercises, check the appropriate boxes in the exercise calendar (*see page 87*).

Remember

The quality of these exercises is very important! Just a few contractions done properly are more beneficial than multiple repetitions done incorrectly. You will see positive results with time and effort.

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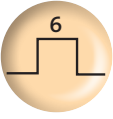
Lie down:

Lie on your back with your knees bent, feet slightly apart and arms at your sides.





Exercise 1 • Strength

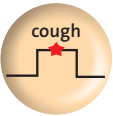


- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard as you can, as though you are trying to hold in urine and gas, and drawing your pelvic floor inward.
- › Maintain the contraction for 6 seconds (slowly count to 6 out loud). Breathe while counting, but try not to release the contraction.
- › Relax your pelvic floor muscles for 12 seconds.
- › Do 3 sets of 6 contraction-relaxation exercises, for a total of 18 contractions.
- › Rest for 1 minute between sets.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles. Do your best. If you can't feel your pelvic floor muscles contracting, stop and try the exercise again later.



Exercise 2 • Coordination

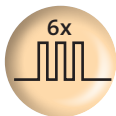


- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard as you can.
- › Maintain the contraction for 1 second, then cough while keeping your pelvic floor muscles contracted.
- › Relax your pelvic floor muscles for 2 seconds, then repeat the contraction-cough-relaxation exercise 2 more times.
- › Rest for 30 seconds.
- › Repeat the entire set 2 more times.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.



Exercise 3 • Quick contractions

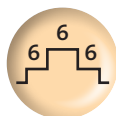


- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard and as quickly as you can, as though you are trying to hold in urine and gas.
- › Maintain the contraction for 1 second, then completely relax your pelvic floor muscles for 1 second.
- › Do 3 sets of 6 quick contraction-relaxation exercises for a total of 18 rapid contractions.
- › Take a 12-second rest between sets.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.



Exercise 4 • Endurance



- › Inhale and then slowly breathe out through your mouth while gently contracting your pelvic floor muscles for 6 seconds.
- › Then, without releasing the initial contraction, contract the muscles as hard as you can for 6 seconds.
- › Return to the gentle contraction for 6 seconds. Remember: don't hold your breath during the exercise.
- › Then completely relax your pelvic floor muscles and rest for 18 seconds.
- › Repeat this gentle-strong-gentle exercise 2 more times.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.

Don't get discouraged! You should start to see results after 4 to 6 weeks.

Incorporate pelvic floor exercises into your daily activities! Always contract your pelvic floor muscles before you cough, sneeze, lift a heavy object, lean over, get up from a chair, or do any other activity that causes you to leak urine.

Exercise and bladder diary

At the end of every day, check off the exercises you have done and write down the total number of urine leaks you had. Regularly keep track of your progress to stay motivated to keep doing your exercises.

Week 1

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Exercise 1							
Exercise 2							
Exercise 3							
Exercise 4							
Number of leaks							

Week 2

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Exercise 1							
Exercise 2							
Exercise 3							
Exercise 4							
Number of leaks							

Week 3

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Exercise 1							
Exercise 2							
Exercise 3							
Exercise 4							
Number of leaks							

Week 4

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Exercise 1							
Exercise 2							
Exercise 3							
Exercise 4							
Number of leaks							

Well done!

You are now ready for the next stage, which involves training the pelvic floor muscles in a sitting position while holding the muscle contractions for longer periods to increase your endurance.

Weeks 5 to 8

The following 4 exercises should be done for 4 weeks. They might seem difficult at first, but they will become easier with time and practice. Make sure you do the exercises daily and pick a calm time of day when you have 25 minutes to do them. Do not do any other activity during the exercises (such as watching television, reading, etc.).

Each day after you complete the exercises, check the appropriate box in the exercise calendar (*see page 97*).

Remember

The quality of these exercises is very important! A few maximum-intensity contractions done properly are more beneficial than multiple repetitions done incorrectly. You will obtain positive results with time and effort.

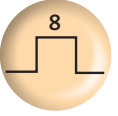
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Get into a sitting position: To help you feel as comfortable as possible, find a chair that you like, has good back support and allows your feet to touch the ground.





Exercise 1 • Strength

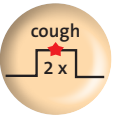


- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard as you can, as though you are trying to hold in urine and gas, and drawing your pelvic floor muscles inward.
- › Maintain the contraction for 8 seconds (slowly count to 8 out loud). Breathe while counting, but try not to release the contraction.
- › Relax your pelvic floor muscles for 16 seconds.
- › Do 3 sets of 8 contraction-relaxation exercises (24 contractions).
- › Rest for 1 minute between sets.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.



Exercise 2 • Coordination



- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard as you can.
- › Maintain the contraction for 1 second and then cough twice while keeping the pelvic floor muscles contracted.
- › Relax your pelvic floor muscles for 2 seconds then repeat the contraction-coughs-relaxation exercise 2 more times.
- › Rest for 30 seconds.
- › Repeat the set 2 more times.

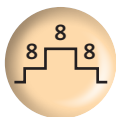
Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.



Exercise 3 • Quick contractions

- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard and as quickly as you can, as though you are trying to hold in urine and gas.
- › Maintain the contraction for 1 second, then completely relax your pelvic floor muscles for 1 second.
- › Do 3 sets of 8 quick contraction-relaxation exercises, for a total of 24 contractions.
- › Take a 16-second rest between sets.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.



Exercise 4 • Endurance

- › Inhale and then slowly breathe out through your mouth while gently contracting your pelvic floor muscles for 8 seconds.
- › Then, without releasing the initial contraction, contract the muscles as hard as you can for 8 seconds.
- › Return to the gentle contraction for 8 seconds. Remember: don't hold your breath during the exercise.
- › Then completely relax your pelvic floor muscles and rest for 24 seconds.
- › Repeat this gentle-strong-gentle exercise 2 more times.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.

Keep it up!

To get the best results, you need to do the exercises every day.

Always contract your pelvic floor muscles before you cough, sneeze, lift a heavy object, lean over, get up from a chair, or do any other activity that causes you to leak urine.

Exercise and bladder diary

At the end of every day, check off the exercises you have done and write down the total number of urine leaks you had.

Week 5

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Exercise 1							
Exercise 2							
Exercise 3							
Exercise 4							
Number of leaks							

Week 6

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Exercise 1							
Exercise 2							
Exercise 3							
Exercise 4							
Number of leaks							

Week 7

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Exercise 1							
Exercise 2							
Exercise 3							
Exercise 4							
Number of leaks							

Week 8

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Exercise 1							
Exercise 2							
Exercise 3							
Exercise 4							
Number of leaks							

Well done!

You are now ready for the next stage, which involves training the pelvic floor in a standing position while holding muscle contractions for longer periods to increase your endurance.

Many people experience urine leakage while standing or walking. It is important to work your pelvic floor muscles in this position.

.....

Weeks 9 to 12

The following 4 exercises should be done for 4 weeks. They might seem difficult at first, but they will become easier with time and practice. Make sure you do the exercises daily, and pick a calm time of day when you have 30 minutes to do them. Do not do any other activity during the exercises (such as watching television, reading, etc.).

Each day after you complete the exercises, check the appropriate box in the exercise calendar (*see page 107*).

Remember

The quality of these exercises is very important! A few maximum-intensity contractions done properly are more beneficial than multiple repetitions done incorrectly. You will obtain positive results with time and effort.

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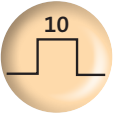
Stand with your feet shoulder-width apart.

If you have trouble standing for long periods or if you tend to lose your balance, stand behind or beside a chair and rest your hand on the back of the chair for support.





Exercise 1 • Strength

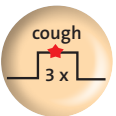


- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard as you can, as though you are trying to hold in urine and gas, and drawing your pelvic floor muscles inward.
- › Maintain the contraction for 10 seconds (slowly count to 10 out loud). Breathe while counting, but try not to release the contraction.
- › Relax your pelvic floor muscles for 20 seconds.
- › Do 3 sets of 10 contraction-relaxation exercises (30 contractions). Rest for 1 minute between each set.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.



Exercise 2 • Coordination

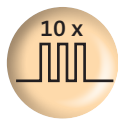


- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard as you can.
- › Maintain the contraction for 1 second, then cough 3 times while keeping the pelvic floor muscles contracted.
- › Relax your pelvic floor muscles for 2 seconds, then repeat the contraction-coughs-relaxation exercise 2 more times.
- › Rest for 30 seconds.
- › Repeat the set 2 more times.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.



Exercise 3 • Quick contractions

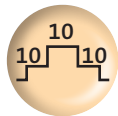


- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard and as quickly as you can, as though you are trying to hold in urine and gas.
- › Maintain the contraction for 1 second, and then completely relax your pelvic floor muscles for 1 second.
- › Do 3 sets of 10 quick contraction-relaxation exercises (30 quick contractions).
- › Take a 20-second rest between sets.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.



Exercise 4 • Endurance



- › Inhale and then slowly breathe out through your mouth while gently contracting your pelvic floor muscles for 10 seconds.
- › Then, without releasing the initial contraction, contract the muscles as hard as you can for 10 seconds.
- › Return to the gentle contraction for 10 seconds. Remember: don't hold your breath during the exercise.
- › Then completely relax your pelvic floor muscles and rest for 30 seconds.
- › Repeat this gentle-strong-gentle exercise 2 more times.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.

Hang in there! You have almost completed the program! Remember to do the pelvic floor exercises during your daily activities.

Always contract your pelvic floor muscles before you cough, sneeze, lift a heavy object, lean over, get up from a chair, or do any other activity that causes you to leak urine.

Exercise and bladder diary

At the end of every day, check off the exercises you have done and write down the total number of urine leaks you had.

Week 9

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Exercise 1							
Exercise 2							
Exercise 3							
Exercise 4							
Number of leaks							

Week 10

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Exercise 1							
Exercise 2							
Exercise 3							
Exercise 4							
Number of leaks							

Week 11

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Exercise 1							
Exercise 2							
Exercise 3							
Exercise 4							
Number of leaks							

Week 12

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Exercise 1							
Exercise 2							
Exercise 3							
Exercise 4							
Number of leaks							

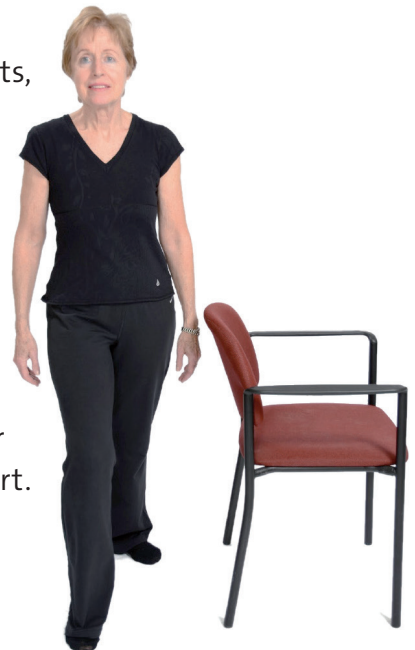
Advanced Exercises

You have made it to the end of the 12-week program—congratulations!

Now that you have mastered the pelvic floor exercises, you should continue to do them 3 times a week to maintain your results. However, if you still have urine leakage, do the exercises 5 times a week. You may see further improvement for up to a year after starting the program.

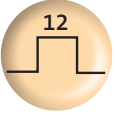
To help you maintain good exercise habits, this next section provides more advanced exercises.

Get into a forward lunge position: Stand with one leg in front of the other. This position simulates walking. If you have trouble standing for long periods or if you tend to lose your balance, stand behind or beside a chair and rest your hand on the back of the chair for support.





Exercise 1 • Strength

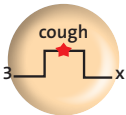


- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard as you can, as though you are trying to hold in urine and gas, and drawing your pelvic floor inward.
- › Maintain the contraction for 12 seconds (slowly count to 12 out loud). Breathe while counting, without relaxing your muscles.
- › Relax your pelvic floor muscles for 12 seconds.
- › Do 3 sets of 12 contraction-relaxation exercises (36 contractions).
- › Rest for 1 minute between sets

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.

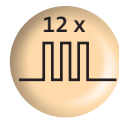


Exercise 2 • Coordination



- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard as you can.
- › Maintain the contraction for 1 second and then cough 3 times while keeping the pelvic floor muscle contracted.
- › Relax your pelvic floor muscles for 2 seconds and then repeat the contraction-coughs-relaxation exercise 2 more times.
- › Rest for 30 seconds.
- › Repeat the set 2 more times.

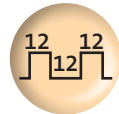
Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.



Exercise 3 • Quick contractions

- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard and as quickly as you can, as though you are trying to hold in urine and gas.
- › Maintain the contraction for 1 second, then completely relax your pelvic floor muscles for 1 second.
- › Do 3 sets of 12 quick contraction-relaxation exercises for a total of 36 rapid contractions.
- › Take a 24-second rest between sets.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.



Exercise 4 • Endurance

- › Inhale and then slowly breathe out through your mouth while contracting your pelvic floor muscles as hard as you can for 12 seconds.
- › Shift to a gentle contraction for 12 seconds.
- › Return to the strong contraction for 12 seconds. Remember: don't hold your breath during the exercise.
- › Then completely relax your pelvic floor muscles for 36 seconds.
- › Repeat this strong-gentle-strong exercise 2 more times.

Relax all your other muscles as much as you can, especially your buttock and inner thigh muscles.

Do the pelvic floor exercises during your daily activities! Always contract your pelvic floor muscles before you cough, sneeze, lift a heavy object, lean over, get up from a chair, or do any other activity that causes you to leak urine.

Conclusion

We hope that this exercise book has helped you learn more about uro-gynecological health and that you found the information and tips useful. We also hope that the pelvic floor muscle exercises help you prevent, reduce or even eliminate your urinary symptoms and that you will continue to do them regularly. As you know, mastering these exercises takes patience and motivation. Keep at it!

When done regularly, the exercises in this guide will help women aged 60 and older maintain good urinary and gynecological health and prevent or slow the progress of bladder control issues, stool and gas leakage, and genital prolapse problems.

However, if you still have urinary symptoms after doing the exercises for 3 months, talk to your doctor or a physiotherapist specialized in pelvic floor muscle training. They will provide advice about the different treatment options for urinary incontinence. There is no need to suffer in silence if you experience these symptoms.

And above all, practise!

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“It’s normal at your age” is the message that many people get about urinary incontinence. Yet, for the women who suffer from it, this condition is embarrassing and hard to talk about. Urinary incontinence affects up to 55% of women over 60, decreases quality of life and can lead to isolation, depression and a loss of independence. However, it can be prevented, treated and even cured without medication or surgery.

In a clear, precise and non-judgemental way, the first part of this guide dispenses with taboos and describes the different types of incontinence and its related factors. The second part includes a 12-week home-based exercise program. These scientifically and clinically validated exercises have shown to be very effective at treating this difficult condition. In fact, up to 85% of women who practise the techniques to control urinary urgency as well as the pelvic floor exercises described in this book are able to resolve or significantly reduce their incontinence symptoms.

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